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## NATURAL RESOURCES CONSERVATION SERVICE VIRGINIA

# OPERATION AND MAINTENANCE REQUIREMENTS WATER WELL

#### **CODE 642**

Land Owner/Operator			
County	SWCD		Farm/Tract No
Prepared By		Date	

#### **OPERATION AND MAINTENANCE ITEMS**

A properly operated and maintained well is an asset to the farm. This well was installed to provide beneficial use of subsurface water. Estimated life span of this installation is at least \_\_\_\_\_ years. The life of this system can be assured and usually increased by developing and carrying out a systematic operation and maintenance program.

This practice will require periodic maintenance and may also require operational items to maintain satisfactory performance. Your operation and maintenance program includes:

- Maintain the well cover securely in place. Protect the area from being damaged by agriculture machinery, vehicles, or livestock. Locks on the well cover and fencing around the well head are strongly recommended.
- All fences, railings, and/or warning signs shall be maintained to provide warning and/or prevent unauthorized human or livestock entry.
- Do not allow any foreign debris to accumulate in the immediate vicinity of the well head.
- Maintain soil and vegetative covering around the well. Keep all surface water from entering or accumulating at the immediate vicinity of the well site.
- Eradicate or otherwise remove all rodents or burrowing animals. Immediately repair any damage caused by their activity.
- Check metal surfaces for rust and other damage especially sections in contact with earth and with other materials. Repair or replace any damaged sections and apply paint as a protective covering.
- Immediately repair any vandalism, vehicular, or livestock damage.

#### PROCEDURES FOR COLLECITON OF WATER QUALITY SAMPLES

#### **Bacterial Sampling**

Sampling of community water supply wells is covered by requirements of the State Board of Health and the local health department. For individual domestic wells, technical assistance or advice regarding the collection of bacteriological samples may be obtained from local health department or from the laboratory that will examine the sample.

If no technical assistance is available, the following procedure will suffice: A sterile sample bottle, preferably one provided by the laboratory that will make the determination, must be used. It is extremely important that nothing except the water to be analyzed come in contact with the inside of the bottle or the cap; the water must not be allowed to flow over an object or over the hands while the bottle is being filled. Do not rinse the sample bottle. The sample should be delivered to the laboratory as soon as possible and in no case more than 24 hours after its collection. During delivery, the sample should be kept as cool as possible (but not frozen).

### **Chemical (Mineral) Sampling**

Generally, a routine mineral analysis (determination of the concentrations of the common minerals) will suffice, particularly where there is no prior knowledge of the chemical quality of the water in the area where the well is located. Where quality conditions in the surrounding area are known, a more collective analysis may be made. Information or advice about chemical quality conditions may be obtained from local agencies such as the county farm advisor's office, health department, and Virginia Cooperative Extension.

The sample should be collected after the well has been pumped long enough to remove standing water and disinfectant chemicals, and to insure that water from the producing formation(s) has entered the well. The water sample should be obtained in a chemically clean container preferably one obtained from the laboratory which has been selected to perform the analysis. The container should be rinsed several times with the water to be sampled prior to collecting the sample. The laboratory performing the analysis should issue instructions regarding the quantity of sample required. However, one-half gallon is usually sufficient for a routine mineral analysis; one gallon is needed when analysis for heavy metals is being requested.

Additional Operation and Maintenance Requirements Specific to this Plan: